

PATENT ABSTRACTS OF JAPAN

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(54) NONVOLATILE SEMICONDUCTOR STORAGE DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a nonvolatile semiconductor storage device comprising a variable resistor element having a variable resistor of a perovskite-type crystal structure and capable of writing information independently of a large current driving.

SOLUTION: The nonvolatile semiconductor storage device comprises a variable resistor element 10 with a lower electrode 7, the variable resistor element 8 of the perovskite-type crystal structure, and an upper electrode 9 laminated in order. At least either one electrode of the lower electrode 7 or the upper electrode 9 is a particulate electrode composed of a collectivity of a particulate electrical conductor with its contacting area at an interface with the variable resistor 8 actually decreased to make an initial resistance of the variable resistor element 10 high. Further, the variable resistor 8 is preferably film formed to be a highly crystalline state.

